

Reply to Office Action of January 31, 2007Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus ~~for controlling that controls~~ a hot water ~~washing of wash cycle in~~ a washing machine, ~~the apparatus~~ comprising:

a water supply ~~unit configured to supply water according to an inputted that~~ supplies water to a washing machine based on an input control signal;

a heater ~~unit configured to heat that heats~~ water in the washing machine up to a predetermined temperature ~~according to the inputted~~ based on the input control signal;

a sensor ~~unit configured to sense whether that senses~~ a water level in the washing machine ~~is equal to or greater than a heating water level and a washing water level, the washing water level being above the heating water level, and wherein the sensor unit is also configured to sense a temperature of the water and a temperature of the water;~~ and

~~a control unit configured to control controller that controls~~ the water supply ~~unit~~ and the heater ~~unit~~ based on a sensing signal ~~of generated by the sensor unit, wherein the controller turns the heater on when the sensor senses that the heater is submerged, and wherein the water supply continues to supply water to the washing machine after the heater is turned on.~~

2. (Currently Amended) The apparatus as claimed in claim 1, wherein the ~~heating water level is~~ a water level at which the heater ~~unit~~ is completely submerged ~~is a heating water~~

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level, and desired fill level for the washing machine is a washing water level, and wherein the washing water level is greater than the heating water level.

3. (Currently Amended) The apparatus as claimed in claim 2, wherein the heating water level is approximately 20~30% of the washing water level.

4. (Original) The apparatus as claimed in claim 1, wherein the washing machine is a drum type washing machine.

5-16. (Cancelled)

17. (New) The apparatus as claimed in claim 2, wherein the controller turns the heater on as soon as the sensor senses that the water level in the washing machine is at the heating water level.

18. (New) The apparatus as claimed in claim 2, wherein the heater heats water accumulated in the washing machine as the water supply continues to fill the washing machine with water to the washing water level.

19. (New) The apparatus as claimed in claim 18, wherein the controller turns the water supply off when the sensor senses that the water level in the washing machine reaches the washing water level.

20. (New) The apparatus as claimed in claim 18, wherein the heater continues to operate for a predetermined amount of time, after the water level reaches the washing water level and the water supply is turned off, to heat the water to the predetermined temperature.

21. (New) The apparatus as claimed in claim 20, wherein the controller turns the heater off when the sensor senses that the water has reached the predetermined temperature.

22. (New) A hot water control apparatus for a washing machine, comprising:
a water supply that supplies water to a washing machine;
a heater that heats water collected in the washing machine;
a sensor that senses a water level in the washing machine; and
a controller that turns on the heater when the sensor senses that the heater is submerged while the water supply continues to supply water to the washing machine.

23. (New) The apparatus as claimed in claim 22, wherein the water supply continues to supply water to the washing machine after the heater is turned on, so as to supply water to a predetermined level.

24. (New) The apparatus as claimed in claim 22, wherein the controller turns the water supply off when the water level in the washing machine reaches a predetermined fill level.

25. (New) The apparatus as claimed in claim 24, wherein the predetermined fill level is greater than the level at which the heater is fully submerged.

26. (New) The apparatus as claimed in claim 25, wherein the level at which the heater is fully submerged is approximately 20-30% of the predetermined fill level.

27. (New) The apparatus as claimed in claim 26, wherein the heater continues to operate after the water level reaches the predetermined fill level and the water supply is shut off.

28. (New) The apparatus as claimed in claim 26, wherein the controller shuts the heater off when the sensor senses that a temperature of the water accumulated in the washing machine has reached a predetermined temperature.